Control Unit
RC120MHXGA
RC140MHXGA
RC160MHXGA
RC090MHXEA
RC120MHXEA
RC140MHXEA
RC160MHXEA

Air to Water Heat Pump -Mono Control Unit

user manual

imagine the possibilities

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Features of your Air to water heat pump

- **Easy installation**

  No need to install the refrigerant lines in the system. Users can run the system after connecting water pipes only.

- **Integrated Heating & Cooling system**

  Plate Heat exchanger is a integral part in heating & cooling system. For user's convenience, PHE is integrated into the system. This concept will help space saving and lower costs for pipe line reduction.

- **Running Costs-Reduction of Up to 33.3%**

  Samsung EHS, known for its world class efficiency (12kW floor heating system with COP of 4.60), can reduce 33.3% of your running costs as compared to a gas boiler.

- **High Performance at Low Temperature**

  Samsung EHS is made up of an inverter compressor optimally operated according to the outdoor temperature, offering heating performance of 90% at -10°C and reliable frost protection at -20°C.

Planet First **RoHS Compliant**

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For easy future reference, write the model and serial number down. You will find your model number on the bottom right side of the air conditioner.

Model #_____

Serial #_____

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Safety precautions

Before using your new air conditioner, please read this manual thoroughly to ensure that you know how to safely and efficiently operate the extensive features and functions of your new appliance.

Because the following operating instructions cover various models, the characteristics of your air conditioner may differ slightly from those described in this manual. If you have any questions, call your nearest contact center or find help and information online at www.samsung.com.

Important safety symbols and precautions:

WARNING	Hazards or unsafe practices that may result in **severe personal injury or death.**
CAUTION	Hazards or unsafe practices that may result in **minor personal injury or property damage.**

	Follow directions.		Unplug the power plug from the wall socket.
	Do NOT attempt.		Do NOT disassemble.
	Make sure the machine is grounded to prevent electric shock.		

FOR INSTALLATION | WARNING

Plug the power cord into a wall socket with the power specifications of the product or higher and use the socket for this appliance only. In addition, do not use an extension cord.
- Sharing a wall socket with other appliances using a power strip or extending the power cord may result in electric shock or fire.
- Do not use an electric transformer. It may result in electric shock or fire.
- If the voltage/frequency/rated current condition is different, it may cause fire.

The installation of this appliance must be performed by a qualified technician or service company.
- Failing to do so may result in electric shock, fire, explosion, problems with the product, or injury.

Install a switch and circuit breaker dedicated to the air conditioner.
- Failing to do so may result in electric shock or fire.

Fix the outdoor unit firmly so that the electric part of the outdoor unit is not exposed.
- Failing to do so may result in electric shock or fire.

Do not install this appliance near a heater, inflammable material. Do not install this appliance in a humid, oily or dusty location, in a location exposed to direct sunlight and water (rain drops). Do not install this appliance in a location where gas may leak.
- This may result in electric shock or fire.

Never install the outdoor unit in a location such as on a high external wall where it could fall.
- If the outdoor unit falls, it may result in injury, death or property damage.

This appliance must be properly grounded. Do not ground the appliance to a gas pipe, plastic water pipe, or telephone line.
- Failure to do so may result in electric shock, fire, an explosion, or other problems with the product.
- Never plug the power cord into a socket that is not grounded correctly and make sure that it is in accordance with local and national codes.

FOR INSTALLATION | CAUTION

This appliance should be positioned in such a way that it is accessible to the power plug.
- Failing to do so may result in electric shock or fire due to electric leakage.

Install your appliance on a level and hard floor that can support its weight.
- Failing to do so may result in abnormal vibrations, noise, or problems with the product.

Install the draining hose properly so that water is drained correctly.
- Failing to do so may result in water overflowing and property damage.

When installing the outdoor unit, make sure to connect the draining hose so that draining is performed correctly.
- The water generated during the heating operation by the outdoor unit may overflow and result in property damage. In particular, in winter, if a block of ice falls, it may result in injury, death or property damage.
- The air conditioner should be used only for the applications for which it has been designed : the indoor unit is not suitable to be installed in areas used for laundry.
- Our units must be installed in compliance with the spaces indicated in the installation manual to ensure either accessibility from both sides or ability to perform routine maintenance and repairs. The units'components must be accessible and that can be disassembled in conditions of complete safety either for people or things. For this reason, where it is not observed as indicated into the Installation Manual, the cost necessary to reach and repair the unit (in safety, as required by current regulations in force) with slings, trucks, scaffolding or any other means of elevation won't be considered in-warranty and charged to end user.

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FOR POWER SUPPLY | ⚠ WARNING

Remove all foreign substances such as dust or water from the power plug terminals and contact points using a dry cloth on a regular basis.
- Unplug the power plug and clean it with a dry cloth.
- Failing to do so may result in electric shock or fire.

Plug the power plug into the wall socket in the right direction so that the cord runs towards the floor.
- If you plug the power plug into the socket in the opposite direction, the electric wires within the cable may be damaged and this may result in electric shock or fire.

When the appliance or power plug or power cord is damaged, contact your nearest service center

Plug the power plug into the wall socket firmly. Do not use a damaged power plug, damaged power cord or loose wall socket.
- This may result in electric shock or fire.

Do not pull the power cord, when unplugging the power plug.
- Unplug the power plug by holding the plug.
- Failing to do so may result in electric shock or fire.

Do not pull or excessively bend the power cord. Do not twist or tie the power cord. Do not hook the power cord over a metal object, place a heavy object on the power cord, insert the power cord between objects, or push the power cord into the space behind the appliance.
- This may result in electric shock or fire.

FOR POWER SUPPLY | ⚠ CAUTION

When not using the air conditioner for a long period of time or during a thunder/lightning storm, cut the power at the circuit breaker.
- Failing to do so may result in electric shock or fire.

FOR USING | ⚠ WARNING

If the appliance is flooded, please contact your nearest service center.
- Failing to do so may result in electric shock or fire.

If the appliance generates a strange noise, a burning smell or smoke, unplug the power plug immediately and contact your nearest service center.
- Failing to do so may result in electric shock or fire.

In the event of a gas leak (such as propane gas, LP gas, etc.), ventilate immediately without touching the power plug. Do not touch the appliance or power cord.
- Do not use a ventilating fan.
- A spark may result in an explosion or fire.

To reinstall the air conditioner, please contact your nearest service center.
- Failing to do so may result in problems with the product, water leakage, electric shock, or fire.
- A delivery service for the product is not provided. If you reinstall the product in another location, additional construction expenses and an installation fee will be charged.
- Especially, when you wish to install the product in an unusual location such as in an industrial area or near the seaside where it is exposed to the salt in the air, please contact your nearest service center.

Do not touch the power plug or the circuit breaker with wet hands.
- This may result in electric shock.

Do not unplug the power plug or turn the air conditioner off with the circuit breaker while it is operating.
- Plugging the power plug into the wall outlet or turning the air conditioner on from the circuit breaker may cause a spark and result in electric shock or fire.

After unpacking the air conditioner, keep all packaging materials well out of the reach of children, as packaging materials can be dangerous to children.
- If a child places a bag over its head, it may result in suffocation.

Do not insert your fingers or foreign substances into the outlet when the air conditioner is operating.
- Take special care that children do not injure themselves by inserting their fingers into the product.

Do not touch the air flow blade with your hands or fingers during the heating operation.
- This may result in electric shock or burns.

Do not insert your fingers or foreign substances into the air inlet/outlet of the air conditioner.
- Take special care that children do not injure themselves by inserting their fingers into the product.

Do not strike or pull the air conditioner with excessive force.
- This may result in fire, injury, or problems with the product.

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Safety information

FOR USING | ⚠ WARNING

Do not place an object near the outdoor unit that allows children to climb onto the machine.
• This may result in children seriously injuring themselves.
Do not use this air conditioner for long periods of time in badly ventilated locations or near infirm people.
• Since this may be dangerous due to a lack of oxygen, Open a window at least once an hour.

If any foreign substance such as water has entered the appliance, cut the power by unplugging the power plug and turning the circuit breaker off and then contact your nearest service center.
• Failing to do so may result in electric shock or fire.

Do not attempt to repair, disassemble, or modify the appliance yourself.
• Do not use any fuse (such as cooper, steel wire, etc.)other than the standard fuse.
• Failing to do so may result in electric shock, fire, problems with the product, or injury.

FOR USING | ⚠ CAUTION

Do not place objects or devices under the indoor unit.
• Water dripping from the indoor unit may result in fire or property damage.
Check that the installation frame of the outdoor unit is not broken at least once a year.
• Failing to do so may result in injury, death or property damage.
Max current is measured according to IEC standard for safety and current is measured according to ISO standard for energy efficiency.

Do not stand on top of the appliance or place objects (such as laundry, lighted candles, lighted cigarettes, dishes, chemicals, metal objects, etc.) on the appliance.
• This may result in electric shock, fire, problems with the product, or injury.
Do not operate the appliance with wet hands.
• This may result in electric shock.
Do not spray volatile material such as insecticide onto the surface of the appliance.
• As well as being harmful to humans, it may also result in electric shock, fire or problems with the product.
Do not drink the water from the air conditioner.
• The water may be harmful to humans.
Do not apply a strong impact to the remote controller and do not disassemble the remote controller.
Do not touch the pipes connected with the product.
• This may result in burns or injury.
Do not use this air conditioner to preserve precision equipment, food, animals, plants or cosmetics, or for any other unusual purposes.
• This may result in property damage.
Avoid directly exposing humans, animals or plants from the air flow from the air conditioner for long periods of time.
• This may result in harm to humans, animals or plants.
This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

FOR CLEANING | ⚠ WARNING

Do not clean the appliance by spraying water directly onto it. Do not use benzene, thinner or alcohol to clean the appliance.
• This may result in discoloration, deformation, damage, electric shock or fire.
Before cleaning or performing maintenance, unplug the air conditioner from the wall socket and wait until the fan stops.
• Failing to do so may result in electric shock or fire.

FOR CLEANING | ⚠ CAUTION

Take care when cleaning the surface of the heat exchanger of the outdoor unit since it has sharp edges.
• To avoid cutting your fingers, wear thick cotton gloves when cleaning it.

Do not clean the inside of the air conditioner by yourself.
• For cleaning inside the appliance, contact your nearest service center.
• When cleaning the internal filter, refer to the descriptions in the 'Cleaning the air conditioner' section.
• Failure to do may result in damage, electric shock or fire.

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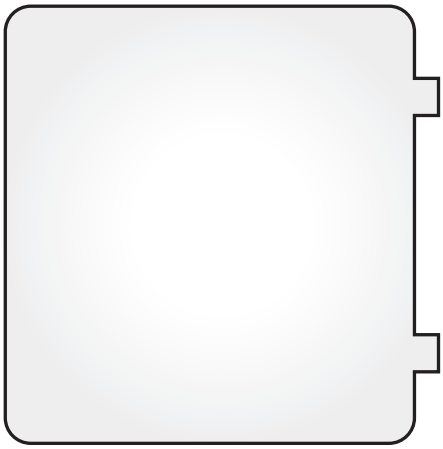
STATUS INDICATOR



Mode	Status	Display	Function
Status	Compressor On		This icon indicates that the compressor in the outdoor unit is running.
	Back-up heater On		This icons indicate that the backup heater of the unit is operating, when there is a high demand for heating capacity. The backup heater provides extra heating capacity in case of low ambient outdoor temperature (high heating load).
	Booster heater On		This icon indicates that the booster heater is active. The booster heater provides auxiliary heating for the domestic hot water tank. The booster heater is located in the domestic hot water tank. The icon is not used when the domestic hot water tank is not installed.
	Solar thermal panel On		It indicates when the solar panel is powered on. DHW mode is stopping while solar panel is on in order to save your energy cost.
	Back up boiler On		The Back up boiler shall start to work as soon as outdoor temperature reach to the targeted temperature. Users can adjust the temperature to allow the back up boiler work. The icon shall not be displayed without the Installation of the back up boiler.
	Water pump On		This icon indicates that the circulation pump is active.
	Domestic water On		This icon indicates when the domestic water heating mode is operating.
	Defrost operation On		This icon indicates that the defrost mode is active.
	Anti freezing operation On		The system automatically maintains the water temperature above a freezing point to prevent from freezing-fracture of piping system.
	Sanitary operation On		This function disinfects the DHW tank by periodically heating the domestic water to a specific temperature.

```
ERROR: rangecheck
OFFENDING COMMAND: .buildshading3

STACK:

-dictionary-
-dictionary-
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